Application No.: 10/633,207 Attorney Docket No. 13779-444
Office Action Dated: December 9, 2009 Page 4 of 7

Reply to Office Action Dated: March 9, 2009

## REMARKS

Claims 1, 2, 4-6, and 12-19 are pending in the present application. Claims 12-14 have been amended, and claims 1, 2 and 4-6 have been cancelled without prejudice to or disclaimer of the subject matter contained therein. New claims 20 and 21 have been added. The claim amendments and the new claims are fully supported by the as-filed specification at least at paragraphs [0023] and [0033] to [0035]. Accordingly, no new matter is being added to the application. Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

## Rejections under 35 U.S.C. § 103

## I. Lee and Yang

Claims 1-2, 4, 6, 12-15, and 17-19 were rejected as being unpatentable over Lee, U.S. 4,729,190 ("Lee") in view of Yang et al., U.S. 6,165,529 ("Yang"). Applicants respectfully traverse. Claims 1-2, 4, and 6 have been cancelled. Thus, rejection thereof is now moot.

Amended claim 12 recites a process for preserving post harvest produce comprising coating post harvest produce with a coating composition comprising an aqueous emulsion of polyvinylidene chloride copolymer, and at least one surfactant which is selected from the group consisting of octylphenol ethoxylates, polysorbates and nonylphenol ethoxylates, wherein the post harvest produce are fruits and vegetables.

Amended claim 13 recites a process for preserving post harvest produce comprising the step of coating the post harvest produce with a coating composition comprising an aqueous emulsion of less than about 50% by weight of a polyvinylidene chloride copolymer, and from about 0.0005 to 10% by weight of a non-ionic surfactant, wherein said copolymer is formed of co-monomers selected from the group consisting of acrylic acid, methyl acrylic acid, vinyl chloride, vinyl acetate, methyl methacrylate, propylene, ethylene, acrylates, styrenes, and combinations thereof, wherein the post harvest produce are fruits and vegetables.

Both claims 12 and 13 include a process for preserving post harvest produce comprising coating the produce with a coating composition comprising an aqueous *emulsion* of a polyvinylidene chloride copolymer and a non-ionic surfactant, wherein the produce are fruits and vegetables. Applicants submit that neither Lee nor Yang disclose or suggest a coating composition comprising an aqueous *emulsion*.

Application No.: 10/633,207 Attorney Docket No. 13779-444
Office Action Dated: December 9, 2009 Page 5 of 7

Reply to Office Action Dated: March 9, 2010

Lee discloses a membrane-forming polymeric system comprising the molecular association product of a polymeric carboxylic acid having at least 10% of the monomer units containing free carboxylic groups with an ethoxylated nonionic surfactant. *See*, Abstract. Lee states "[t]he ... objects of the invention are attained by the unexpected discovery that a blend of a polymeric carboxylic acid and an ethoxylated nonionic surfactant ... yields a rubbery and thermoplastic system having a low and adjustable glass transition temperature, and exhibiting flexibility in terms of permeabilities for various active agents." *See*, c. 2, ll.

58-65. Lee discusses the process of making the required blend, stating

[t]he process of forcing a homogeneous blend, in accordance with the present invention, involves blending the indicated polymeric carboxylic acid and ethoxylated nonionic surfactant under conditions and subsequent treatment as explained hereinafter as determined by the end use requirements of the systems. Thus, since most of the blends so formed are relatively insoluble in water, it is preferred to <u>dissolve the polymeric carboxylic acid and ethoxylated nonionic surfactant in separate solvents or water-solvent mixtures</u> (which can be the same solvent or different but miscible solvents) in the desired concentration, and subsequently to <u>add one solution to the other</u> such that a <u>solution of the blend</u> is formed from which useful membranes, coatings and other finished forms such as carriers for the controlled release of active agents can be prepared.

See, c. 6, ll. 46-61. Based on the foregoing, one of ordinary skill in the art would understand that the coating of Lee must be a homogenous blend prepared from blending <u>solutions</u> of polymeric carboxylic acid and ethoxylated nonionic surfactant. As such, one of ordinary skill in the art would understand Lee to teach away from a coating composition comprising an aqueous <u>emulsion</u>, as recited in claim 12 and 13.

Yang discloses a process for preserving fresh produce by coating the produce with a composition comprising an <u>aqueous solution</u> comprising polyvinyl alcohol, water soluble starch, and surfactant. See, c. 2, ll. 21-46. As with Lee, the coating disclosed in Yang comprises an aqueous <u>solution</u>.

Claims 12 and 13 require a coating composition comprising an aqueous <u>emulsion</u> of a polyvinylidene chloride copolymer and a non-ionic surfactant. Thus, the copolymer is not homogenously distributed in dissolved form, as disclosed in the compositions of Lee and Yang, but rather is present in the form of small emulsified droplets. Lee and Yang disclose that the coatings thereof are 1) a homogenous blend prepared from blending <u>solutions</u> of polymeric carboxylic acid and ethoxylated nonionic surfactant and 2) an aqueous <u>solution</u>, respectively. In fact, Lee states that the homogenous blend thereof enables the unexpected

Application No.: 10/633,207 Attorney Docket No. 13779-444
Office Action Dated: December 9, 2009 Page 6 of 7

Office Action Dated: December 9, 2009 Reply to Office Action Dated: March 9, 2010

properties of the coating and thus must be forced. In fact, given the teachings of Lee and Yang, one of ordinary skill in the art would have no reason to modify the coatings of Lee and Yang to formulate a coating comprising an aqueous *emulsion*, as recited in claims 12 and 13.

Applicants further submit that one of ordinary skill in the art would have no reason to combine the teachings of Lee and Yang because the references are solving different problems. Lee discloses that the coating thereof may be used to coat seeds to provide greater control of the germination process and to adjust the size of the seed where desirable. *See*, c. 11, ll. 7-12. Thus, this portion of Lee is directed to the plant life cycle prior to any plant growing. In contrast, Yang discloses a process for preserving fresh produce. In Yang, the coating composition limits but does not prevent respiratory exchange to control and prolong the maturation and ripening process for fresh produce. *See*, c. 2, ll. 46-52. Thus, Yang is directed to the product of the plant that may have grown from seeds coated with the composition of Lee. As can be seen, the two references are directed to opposite ends of the life cycle spectrum of plant life and are also directed to completely different plant processes. Thus, one of ordinary skill in the art would have no reason to believe that coating compositions used for one process (e.g., controlling seed germination) may be used in the other process (e.g., prolonging the maturation process for fresh produce).

Based on the foregoing, Applicants submit that claims 12 and 13 are not obvious in view of the combination of Lee and Yang. Accordingly, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

## II. Lee, Yang, and Bice

Claims 5 and 16 were rejected as being unpatentable over Lee and Yang, further in view of Bice, U.S. 3,674,510 ("Bice"). Applicants respectfully traverse. Claim 5 has been cancelled. Thus, any rejection thereof is now moot.

Claim 16 depends from claim 13, which is discussed in detail above with respect to the combination of Lee and Yang. As indicated above, Lee teaches away from a coating composition comprising an aqueous emulsion, as recited in claim 13. Thus, even if Bice discloses a coating composition comprising an aqueous emulsion (Applicants are not stating that Bice contains such a disclosure), such disclosure cannot overcome the teaching away of Lee. Based on the foregoing, Applicants submit that claim 16 is not obvious in view of the combination of Lee, Yang, and Bice. Accordingly, Applicants respectfully request reconsideration and withdrawal of the instant rejection.

Application No.: 10/633,207 Attorney Docket No. 13779-444
Office Action Dated: December 9, 2009 Page 7 of 7

Office Action Dated: December 9, 2009 Reply to Office Action Dated: March 9, 2010

For the foregoing reasons, claims 12-21 are considered to be allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

The Director is hereby authorized to charge any appropriate fees that may be required by this paper, and to credit any overpayment, to Deposit Account No. 23-1925.

Respectfully submitted,

BRINKS HOFER GILSON & LIONE

Date: 3/9/10

Allyn B. Rhodes

Registration No. 56,745

2801 Slater Road, Suite 120 Morrisville, NC 27560-8477

Phone: 919.481.1111

746978v2